

Amendments to the Specification

Please replace the paragraph beginning on page 13, line 23 with the following rewritten paragraph:

With reference to FIG. ~~[[3]]~~3A, the aforementioned technique may be described as “direct capture” since the target biomolecules 40 are captured directly on the surface of membranes (or within the membrane), instead of being captured indirectly by a binding agent (such as an antibody or nucleic acid probe) applied to the membrane. During this disclosed process different components of the sample bind to the membrane with the same affinity, but directly proportional to their concentration in the sample (a component with a higher concentration will leave more molecules on each membrane, and a component with a lower concentration will leave less molecules on each membrane). A detector molecule 42, such as a labeled antibody that specifically binds to the biomolecule 40, may be utilized to detect biomolecule bound to the membrane. In examples in which the amount of a component bound to the membrane is proportional to the amount of the component in the sample, an amount of the detector molecule can be correlated to an amount (or relative amount) of the biomolecule detected.

Please replace the paragraph beginning on page 14, line 11 with the following rewritten paragraph:

In order to achieve high affinity and high capacity for a particular group of biomolecules from a sample, coating of the membranes with a captor molecule 44 is performed in the method described by Englert et al. (*supra.*). This may be referred to as “indirect capture” and is illustrated in FIG.~~[[4B]]~~3A. Captor 44 can be cDNA, antibody, or any other protein specific for the target of interest. Single-stranded cDNA molecules generated by number of means (Polymerase Chain Reaction, nick translation, reverse transcription, oligonucleotide synthesis) or proteins (like immunoglobulin) can be directly attached to the membrane. Alternatively, the linker-arms that would allow spatial control of the captor binding could be directly attached to the membrane followed by captor attachment to them. This will expose the majority of the active target recognition sites increasing that way capacity of the indirect capture. Streptavidin coated membranes may be employed to bind end-biotinilated nucleic acids and randomly biotinilated proteins, or protein A and protein G to bind immunoglobulins.